

subdivision of this series of Researches  
 which contains the ;  
 account of the *volta-electrometer* (439, etc.).  
 521. In the next place, I also consider the  
 law as established l  
 with respect to *muriatic acid* by the  
 experiments and reasoning j  
 already advanced, when speaking of that  
 substance, in the  
 subdivision respecting primary and  
 secondary results (493, etc.).  
 522. I consider the law as established also  
 with regard to j  
*hydriodic acid* by the experiments and  
 considerations already j  
 advanced in the preceding division of this  
 series of Researches j  
 (502, 503). j  
 523. Without speaking with the same  
 confidence, yet from j  
 the experiments described, and many  
 others not described, l  
 relating to hydro-fluoric, hydro-cyanic, ferro-  
 cyanic, and sulpho-  
 cyanic acids (505, 506, 507), and from the  
 close analogy which j  
 holds between these bodies and the  
 hydracids of chlorine, i  
 iodine, bromine, etc., I consider these also  
 as coming under !  
 subjection to the law, and assisting to prove  
 its truth.  
 524. In the preceding cases, except the  
 first, the water is  
 believed to be inactive; but to avoid any  
 ambiguity arising  
 from its presence, I sought for ?  
 substances from which  
 it should be absent altogether; and,  
 taking advantage j  
 of the law of conduction already  
 developed (116, etc.), j  
 I soon found abundance, amongst which  
~~pro to chloride~~ l  
*of tin* was first subjected to  
 decomposition in the j  
 following manner. A piece of platina  
 wire had one l  
 extremity coiled up into a small knob,  
 and, having i  
 been carefully weighed, was sealed  
 hermetically into a 1  
 piece of bottle-glass tube, so that the  
 knob should be j  
 at the bottom of the tube within (fig.  
 28). The tube l  
 was suspended by a piece of platina  
 wire, so that the j  
 heat of a spirit-lamp could be applied  
 to it. Recently j  
 fused protochloride of tin was  
 introduced in sufficient j  
 quantity to occupy, when melted, about  
 one half of the <  
 tube; the wire of the tube was  
 connected with a j  
*volta-electrometer* (446), which was itself  
 connected with the I  
 negative end of a voltaic battery; and a  
 platina wire con-  
 nected with the positive end of the same  
 battery was dipped j  
 into the fused chloride in the tube; being  
 however so bent, j

that it could not by any shake of the hand or  
apparatus touch  
the negative electrode at the bottom of the  
vessel. The whole  
arrangement is delineated in fig. 29.  
525. Under these circumstances the  
chloride of tin was  
decomposed: the chlorine evolved at the  
positive electrode